

Remarks/Arguments

Reconsideration of the above-identified application in view of the present amendment is respectfully requested.

By the present amendment, claims 1-13, 15, and 17 have been cancelled, claims 14 and 16 have been amended, and claims 18-32 have been added. Support for new claims 18-32 can be found at ¶24 and ¶¶26-32 of the present application.

Below is a discussion of the September 4, 2008 telephone interview between Applicant's representative and Examiner Hug, the objection to claims 3-6, 8-9, 11-14 and 16-17, the 35 U.S.C. §112, first paragraph, rejection of claims 5, 7-9 and 11-17, the 35 U.S.C. §112, second paragraph, rejection of claims 14-17, the 35 U.S.C. §103(a) rejection of claims 3-4 and 6-7, and a discussion of pending claims 14-32.

1. September 4, 2008 telephone interview.

Applicant's representative wishes to memorialize the September 4, 2008 telephone interview between Applicant's representative and Examiner Hug where Applicant's proposed claim set was discussed. Examiner Hug stated that upon cursory review, it appeared that Applicant's proposed claims define over U.S. Patent No. 2,881,088 to Schulenburg (hereinafter, "Schulenburg") and may be novel. Examiner Hug also stated that he would not proceed to make the pending Office Action final, and that he reserved the right to perform additional searching. Examiner Hug agreed that he would contact the undersigned if he had any further questions during his performance or undertaking of an additional search.

2. Objection to claims 3-6, 8-9, 11-14 and 16-17.

Claims 3-6, 8-9, 11-14, and 16-17 were objected to because of the following inconsistencies: claims 3-5 recite a “fire retardant compound”; claims 6, 8-9, and 12-14 recite a “fire retardant resinous compound”; and claims 14 and 16-17 recite a “fire retardant resin”.

By the present amendment, Applicant has canceled claims 3-6, 8-9, 11-13 and 17. Accordingly, Applicant respectively submits that the objection to claims 3-6, 8-9, 11-13, and 17 is rendered moot by the present amendment.

Also by the present amendment, Applicant has amended claims 14 and 16 to remove any inconsistencies among the claims as objected to by the Office Action. Accordingly, Applicant respectively submits that any inconsistencies among these claims has been removed by the present amendment, and requests that the objection to claims 14 and 16 be withdrawn.

3. 35 U.S.C. §112, first paragraph, rejection of claims 5, 7-9 and 11-17.

Claims 5, 7-9, and 11-17 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Office Argues that: claims 5, 8, and 11-12 are not enabled for the feature “the pH of the fire retardant compound is greater than 9.0 during introduction of the resin” because there is no disclosure of what this compound is or comprises other than borax and diammonium phosphate; claims 5, 8, and 11-12 are not enabled for the feature “the pH of the fire retardant compound is greater than 9.0 during introduction to the resin” because the specification recites that the pH of the fire retardant compound is held within the range of 8.0 – 9.0 during addition to the resin; claim 7 is not enabled because the step recited in claim 7 is not disclosed or described in the specification; and claims

14-17 are not enabled because none of the steps recited in these claims are disclosed or described in the specification.

By the present amendment, Applicant has cancelled claims 5, 7-9, 11-13, 15, and 17. Accordingly, Applicant respectively submits that the 35 U.S.C. §112, first paragraph, rejection of these claims is rendered moot by the present amendment.

Also by the present amendment, Applicant has amended claims 14 and 16 so as to comply with the enablement requirement. Specifically, the subject matter of claims 14 and 16 is taught at ¶26 and ¶32 of the present application. Accordingly, Applicant respectively submits that claims 14 and 16 comply with the enablement requirement, and requests that the 35 U.S.C. §112, first paragraph, rejection of these claims be withdrawn.

4. 35 U.S.C. §112, second paragraph, rejection of claims 14-17.

Claims 14-17 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action argues that claim 14 is indefinite because the resin cannot be fire retardant before adding the borax and diammonium phosphate. The Office Action rejects claims 15-17 as being dependent on claim 14.

By the present amendment, Applicant has cancelled claims 15 and 17. Accordingly, Applicant respectively submits that the 35 U.S.C. §112, second paragraph, rejection of claims 15 and 17 is rendered moot by the present amendment.

Also by the present amendment, claims 14 and 16 have been amended to more particularly point out and distinctly claim the subject matter which Applicant regards as the invention. More particularly, claim 14 has been amended to recite that a fire retardant compound is added to a portion of a resin to form a partial mixture. Additionally, the phrase "fire retardant" has been removed before each occurrence of "resin" in claims 14 and 16.

Accordingly, Applicant respectfully submits that claims 14 and 16 particularly point out and distinctly claim the subject matter which Applicant regards as the invention, and requests that the 35 U.S.C. §112, second paragraph, rejection of these claims be withdrawn.

5. 35 U.S.C. §103(a) rejection of claims 3-4 and 6-7.

Claims 3-4 and 6-7 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schulenburg. The Office Action argues that Schulenburg teaches a fire retardant composition suitable for the impregnation of paper comprising 50-80% of a foam-forming component (*i.e.*, sodium borate) and a carbohydrate or proteinaceous material. The Office Action also argues that the composition can be formed by dispersing the foaming agent into the resin as a solution or suspension, and that the resulting composition can be applied so as to impregnate the desired material. The Office Action acknowledges that Schulenburg does not disclose a combination of borax and diammonium phosphate *per se*. The Office Action argues, however, that it is obvious to one skilled in the art to combine two compositions each of which is taught by the art to be useful for the same purpose to form a third composition to be used for the very same purpose.

By the present amendment, Applicant has cancelled claims 3-4 and 6-7. Accordingly, Applicant respectfully submits that the 35 U.S.C. §103(a) rejection of claims 3-4 and 6-7 is rendered moot by the present amendment.

6. Pending Claims 14-32.

Amended claim 14 features a method of producing an immersible fire retardant paper comprising the steps of: adding a fire retardant compound to a portion of a resin to form a partial mixture, the fire retardant compound comprising borax and diammonium phosphate and said resin being part of a base resin bath; maintaining the pH of said partial mixture at a prescribed level by adding a solution buffer containing sodium hydroxide to form a stabilized partial mixture; mixing said fire retardant compound and said solution buffer with said portion of the resin; adding the remaining portion of the resin to said stabilized partial mixture to form a fire retardant resinous compound; and impregnating a kraft paper with said fire retardant resinous compound to produce said immersible fire retardant paper.

Claim 14 was not rejected in view of any reference under 35 U.S.C. §§102 or 103, and is believed to be allowable as a result. A notice that claim 14 is in condition for allowance is respectfully requested. Claims 16 and 18-24 depend either directly or indirectly from claim 14 and are allowable because of their dependency and own distinctive features. A notice that claims 16 and 18-24 are in condition for allowance is respectfully requested.

New claim 25 features a method of producing an immersible fire retardant paper comprising the steps of: adding a fire retardant compound to a portion of a resin to form a partial mixture, the fire retardant compound comprising borax and

diammonium phosphate and said resin being part of a base resin bath; maintaining the pH of said partial mixture at a level greater than 9.0 by adding a solution buffer containing sodium hydroxide to form a stabilized partial mixture; mixing said fire retardant compound and said solution buffer with said portion of the resin; adding the remaining portion of the resin to said stabilized partial mixture to form a fire retardant resinous compound; and impregnating a kraft paper with said fire retardant resinous compound to produce said immersible fire retardant paper; wherein said step of adding a solution buffer containing sodium hydroxide occurs simultaneous with said step of adding a fire retardant compound to a portion of a resin.

New claim 25 is believed to be in condition for allowance and a notice to that effect is respectfully requested. Claims 26-30 depend either directly or indirectly from claim 25 and are allowable because of their dependency and own distinctive features. A notice that claims 26-30 are in condition for allowance is respectfully requested.

New claim 31 features a method of producing an immersible fire retardant paper comprising the steps of: adding a fire retardant compound to a portion of a resin to form a partial mixture, the fire retardant compound comprising borax and diammonium phosphate and said resin being part of a base resin bath; maintaining the pH of said partial mixture at a level greater than 9.0 by adding a solution buffer containing sodium hydroxide to form a stabilized partial mixture; wherein said step of adding a solution buffer containing sodium hydroxide occurs simultaneous with said step of adding a fire retardant compound to a portion of a resin to produce a gelatinous compound; adding the gelatinous compound to the base resin bath;

subjecting the base resin bath to a temperature of about 140°C to about 150°C for a time sufficient to cure the resin; mixing said fire retardant compound and said solution buffer with said resin; adding the remaining portion of the resin to said stabilized partial mixture to form a fire retardant resinous compound; and impregnating a kraft paper with said fire retardant resinous compound to produce said immersible fire retardant paper.

New claim 31 is believed to be in condition for allowance and a notice to that effect is respectfully requested. Claim 32 depends directly from claim 31 and is allowable because of its dependency and own distinctive features. A notice that claim 31 is in condition for allowance is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this
matter to our Deposit Account No. 20-0090

Respectfully submitted,

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